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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,753	11/27/2000	Amir Kantschuk	P-3750-US	3877

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EXAMINER

CHANG, EDITH M

ART UNIT	PAPER NUMBER
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2637

8<sup>2</sup>

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/721,753

Applicant(s)

KANTSCHUK ET AL.

Examiner

Edith M Chang

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Nov 27 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.7.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because lacking the labels of numeral 20, 10, 16, 18, 12, and 22 in Figure 1. Add label "NEXT Cancellation Filters" to numeral 20 and numeral 22, "CO modem pool" to numeral 10, "Telephone Network" to numeral 16, "Shared Cable" to numeral 18, and "RT modem pool" to numeral 12 of Figure 1.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 1-26 are objected to because of the following informalities:

**Claims 1 & 14**, line 3: spell out "NEXT" in "A of NEXT" as "near-end cross-talk";

Line 7: "said A filters" is suggested changing to "the A filters";

Line 10: "said P probe filters" is suggested changing to "the P probe filters".

**Claim 2**, line 1: "further comprising:" is suggested changing to "further comprising the step of:".

**Claims 13 & 26**, line 2: "said plurality of NEXT cancellation filters" is suggested changing to "said plurality A of NEXT cancellation filters number".

Claims 3-12 and 15-25 are directly or indirectly dependent on the objected claims 1 and 14.

Appropriate corrections are required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 1 & 14**, line 8: "said filters" does not clearly indicated what filters: the A filters, P filters or the A-P filters.

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**Claims 4, 6-9, 17 & 19-22**, line 2: “said filters” does not clearly indicated what filters in claim 1 or claim 14.

**Claim 4**, line 1: “said measuring step” does not clearly indicate which measuring step in claim 1.

**Claims 6 & 8**, line 1: “said allocating step” does not clearly indicated which allocating step, step b) or step c) in claim 1.

**Claims 9**, line 1: “said reallocating step” lacks antecedent basis in claim 1.

**Claims 10-11 & 23-24**, line 4: “said probe filter” lacks antecedent basis.

**Claim 23**, lines 2-3: “said allocating step b)”); lines 4-5: “said reallocating step e)”, “step g), and “step f)” lack antecedent basis. Claim 15 is an apparatus claim, does not comprising method step.

**Claim 24**, line 3: “said allocating step b)”); line 6: “step g); line 7: “said reallocating step e)”, “step h)” and “line 8: “step f)” lack antecedent basis. Claim 15 is an apparatus claim, does not comprising method step.

**Claim 25**, lines 1-2: “said estimating step h)”); line 2: “step g)” and “step f)” lacks antecedent basis.

Claims 2-3, 5, 12-13, 15-16, 18, and 26 directly or indirectly depend on 112 rejected claims 1 and 14.

*Allowable Subject Matter*

5. Claims 1 and 14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph and overcome the objections stated in paragraph 2, set forth in this Office action.

6. Claims 2-13 and 15-26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

7. The following is a statement of reasons for the indication of allowable subject matter:

Claims are allowable over prior art of record because the prior art of record does not teach or suggest, alone or in a combination, among other things, at least a method for NEXT cancellation filter allocation and its communication system having a modem pool being operative as a whole, the combination of elements and features as claimed, which includes allocating  $P$  ( $P \geq 1$ ) filters among a plurality  $A$  of NEXT cancellation filters as probe filters, allocating at least one of the remaining  $A-P$  filters to cancel NEXT, and measuring NEXT impairment caused to at least one target modem by at least one candidate disturber modem to which no  $A-P$  filter is allocated.

*Conclusion*

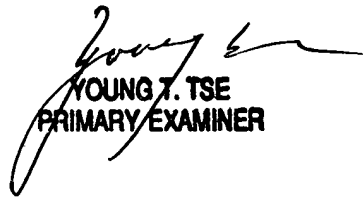
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
August 19, 2004

  
YOUNG T. TSE  
PRIMARY EXAMINER